SECTION 19

Repair: Panels and Connector Bracket

The cabinet top panel and top cover serve as protective covers for ventilator internal components and as a supportive surface for external ventilator accessories. The ventilator back panel assembly and optional inner back panel serve as protective covers for the ventilator internal components. The connector bracket provides electrical connectors for external devices. Before repairing the ventilator, familiarize yourself with the warnings, cautions, and general repair instructions in Section 8.

Warning

To prevent personal injury and equipment or property damage, ensure that electrical power and pneumatic sources are disconnected before servicing ventilator.

Take precautions to prevent foreign objects and debris from entering the ventilator. Place a protective temporary cover, such as an ESD mat, over the ventilator exterior.

19.1 Top Cabinet Panel and Top Cover

There are two versions of the top cabinet panel: an unmodified version and a modified version with mounting brackets for the 7250 Metabolic Monitor.

19.1.1 Removal/Installation

Remove the top cabinet panel and top cover from the ventilator, following the steps below. Install the top cabinet panel by reversing the removal procedures.

1. Remove top cabinet panel.
   a. For unmodified panels, remove by lifting up on top cabinet panel until all four ball studs disengage from their catches (Figure 19-1).
   b. For modified (7250 Metabolic Monitor mount version) panel, remove four screws and lift (Figure 19-2).
2. Remove four screws and four washers from top cover. If ventilator is a later, non-EMI version, leave top cover in place; otherwise, remove top cover.
3. If ventilator is a later non-EMI version, remove back panel (Section 19.2.1), then loosen four screws on the two back panel hangers and remove top cover.

19.1.2 Repair

Repair top cabinet panel and top cover as required, referring to Figure 19-1 or Figure 19-2, and following these procedures.

- To replace console cabinet seal, first remove seal from top cabinet panel by prying it off and by peeling off any residual silicone sealant. Install new console cabinet seal by applying new silicone sealant. Let cure for 24 hours at room temperature.
- To replace card cage pad, first remove pad from top cover by using a prying/scraping tool. Clean the exposed area until thoroughly clean, then apply new pad.
- Update or replace EC Record label (attached to top cover), as appropriate.
- Replace mounting brackets and reinforcement stiffeners (modified top panel only) and ball studs, as required.

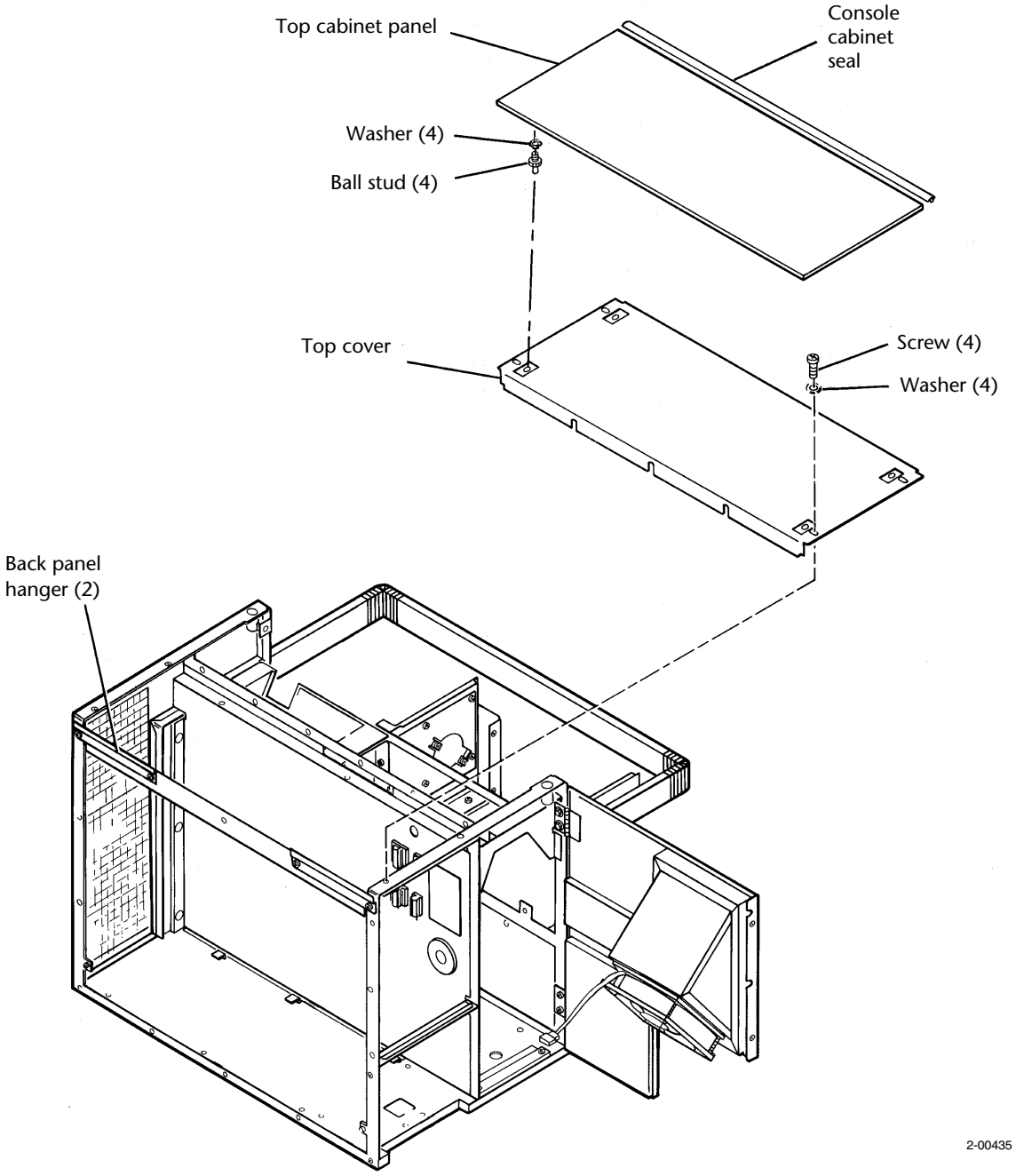

Figure 19-1. Removing and Repairing Top Cabinet Panel and Top Cover (Unmodified Version)

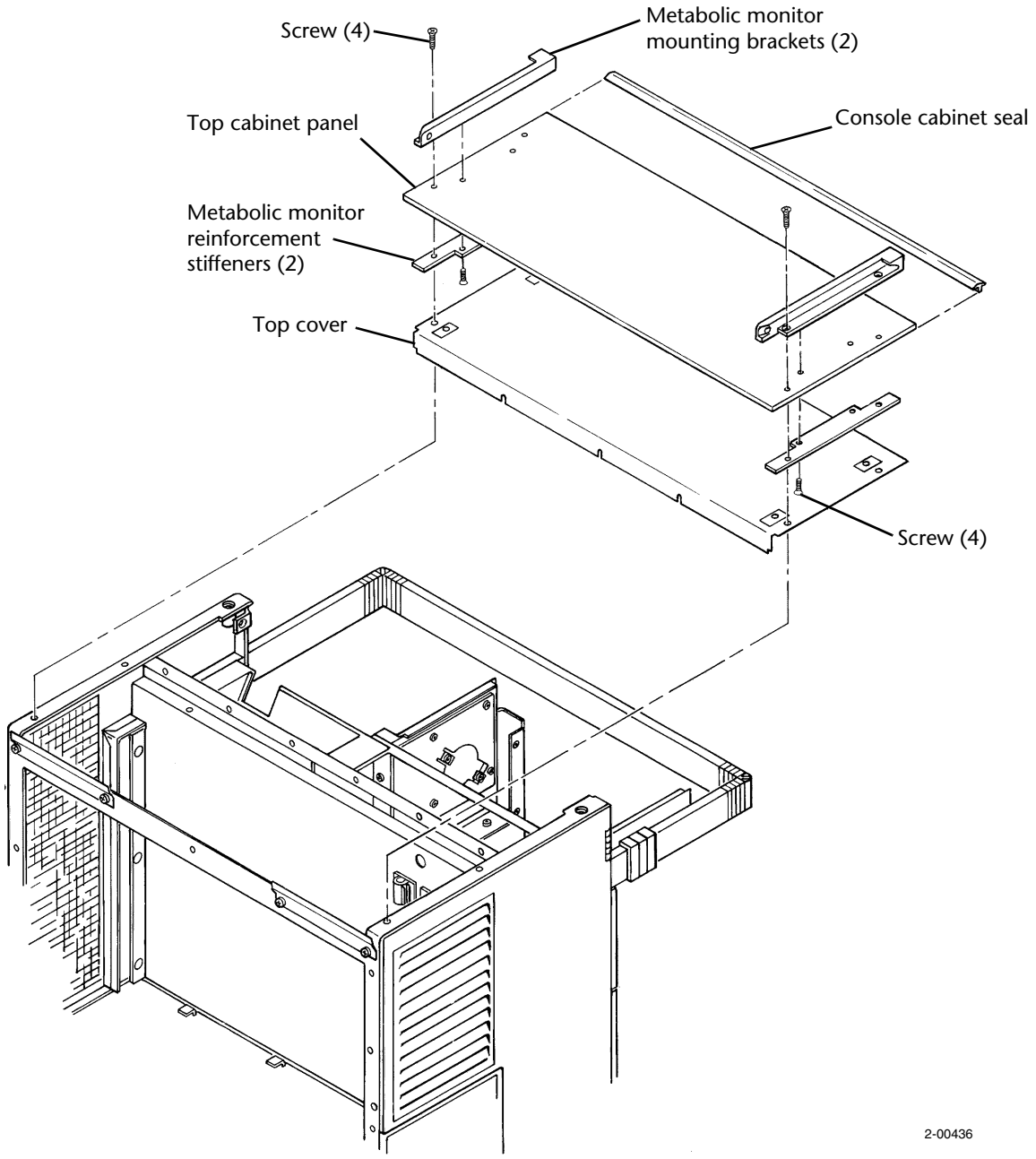

Figure 19-2. Removing and Repairing Top Cabinet Panel and Top Cover (7250 Monitor Mount Version)

19.2 Back Panel Assembly and Inner Back Panel

This subsection provides service procedures for the back panel assembly as well as the inner back panel, which is used in EMI ventilators only.

19.2.1 Removal/Installation

Remove the back panel assembly and inner back panel (if ventilator is so equipped) from the ventilator as follows, referring to Figure 19-3. Install by reversing removal procedures.

1. Remove top cabinet panel (Section 19.1.1).
2. Remove two screws and two washers from bottom edge of back panel.
3. On earlier versions, remove two screws and two washers (thumbscrews on some versions) from left-hand panel.
4. Lift back panel up and off two back panel hangers; or if ventilator is an EMI unit, lift back panel up and off top edge of inner back panel.
5. On EMI units only, remove inner back panel by removing 14 screws and 14 washers.

NOTE:
Whenever an EMI inner back panel is installed, the two back panel hangers are not required.

19.2.2 Repair

Repair the back panel assembly and inner back panel as required, referring to Figure 19-3 and following these procedures.

- Replace all damaged labels. If existing label provides a smooth mounting area, clean area with alcohol, then apply new label. Otherwise, scrape off existing label, then clean with alcohol to achieve a smooth mounting area.

Warning

Failure to replace damaged warning, caution, and identification labels may result in personal injury or equipment or property damage.

- Clean elapsed time meter (ETM) window with alcohol. If ETM window requires replacement, first remove tape and scrape off residue, then thoroughly clean exposed area. Install new window by cutting new double-sided tape to size, then positioning and pressing on window.
- Replace 7-connector or 3-connector panel gasket, as applicable, by first removing gasket and scraping off adhesive residue, then cleaning the exposed area. Install new gasket around connector bracket opening.

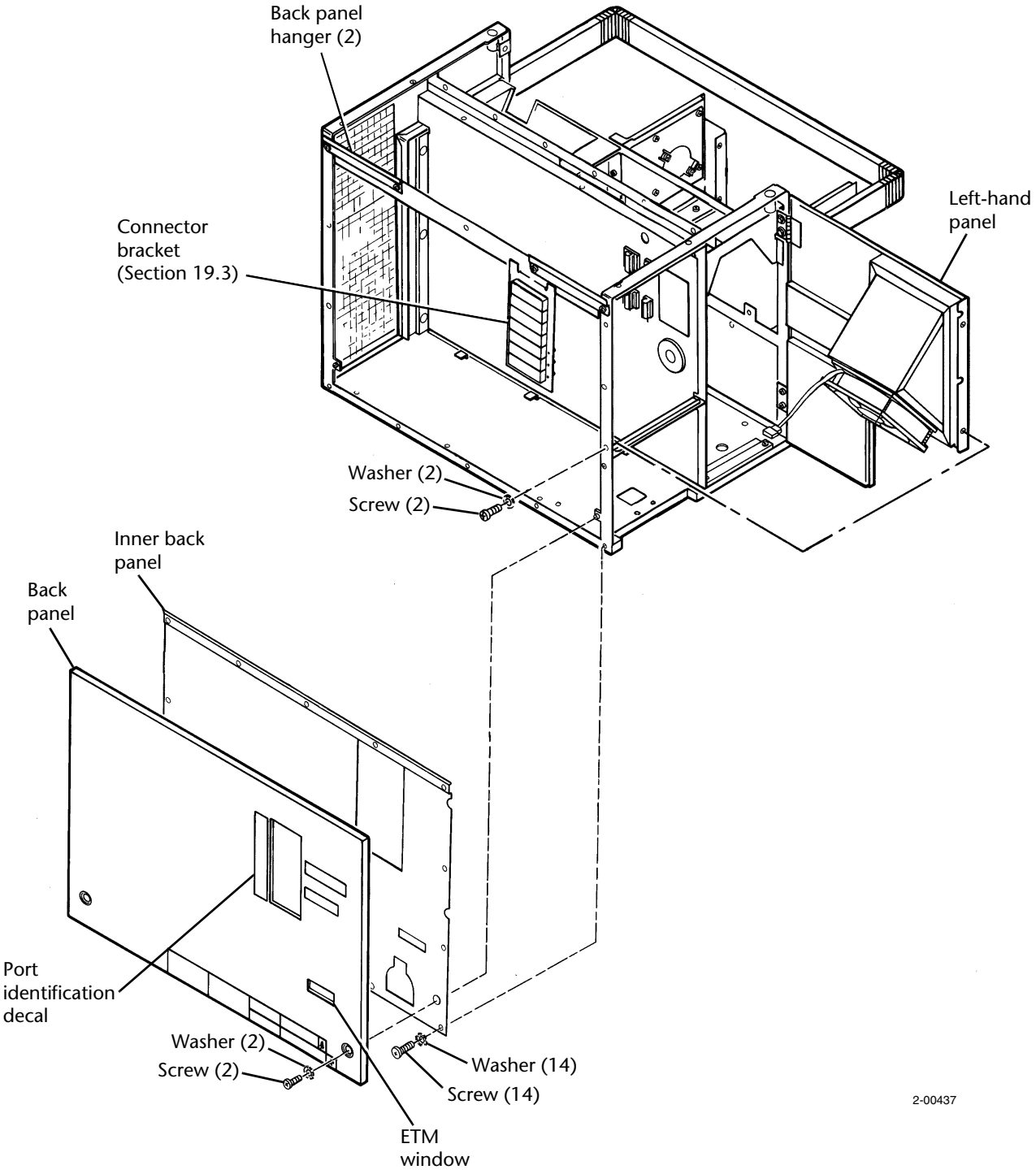

Figure 19-3. Removing Back Panel and Inner Back Panel

19.3 Connector Bracket Assembly

Remove the connector bracket assembly from the ventilator as follows, referring to Figure 19-4. Install by reversing removal procedures.

NOTE:
Early versions were welded to the cabinet.

1. Remove top cabinet panel and top cover, as applicable (Section 19.1.1), back panel and inner panel, as applicable (Section 19.2.1), and swing open the left-hand panel (Section 9.1).
2. Remove harness and cable assemblies from connector bracket, as applicable (Section 19.4).
3. Loosen two screws, two washers, and clamp attaching connector bracket to ventilator. Remove clamp and washers.
4. Remove connector bracket by carefully manipulating it away from the ventilator without causing stress to cable assemblies.
5. If ventilator has Pulse Oximetry, remove core retainer from toroid core rod by loosening screw and sliding toroid off rod, then unscrewing rod from connector bracket stud.
6. Remove cover plates from connector bracket, as applicable, by removing two screws and two washers each.
7. Remove cover plate clamps from connector bracket, as applicable, by removing two nuts and two washers each.

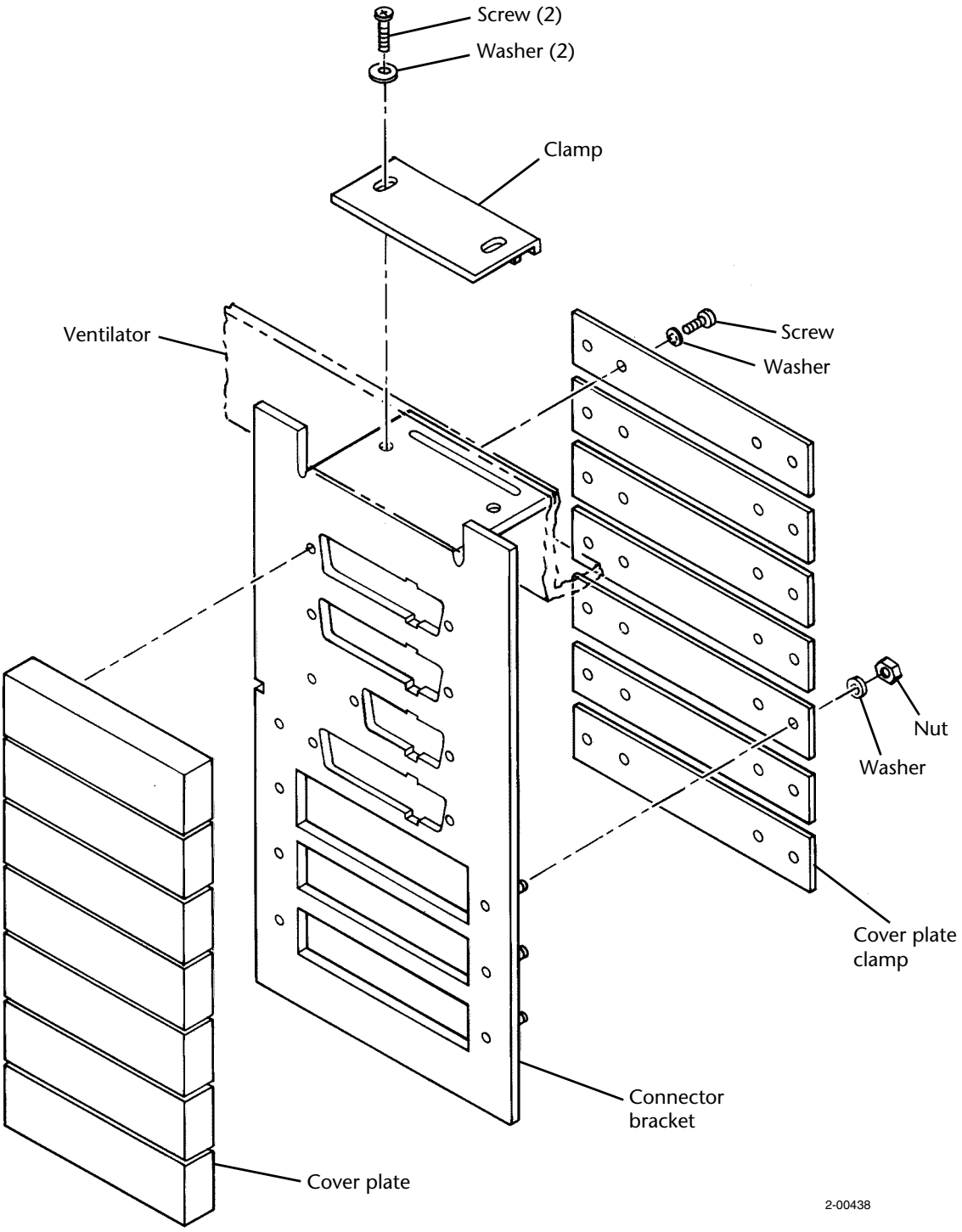

Figure 19-4. Removing Connector Bracket (Seven-Slot Shown)

19.4 Connector Bracket Cable/Harness Assemblies

NOTE:
Refer to the connector port identification label on the back panel for proper removal and installation.

Remove cable or harness assemblies that are attached to the connector bracket as follows, referring to Figure 19-5 through Figure 19-7.

1. Remove connector bracket (Section 19.3), as applicable.
2. Remove desired cable or harness assembly from connector bracket by removing mounting hardware.
3. Finish disconnecting cable or harness assembly.

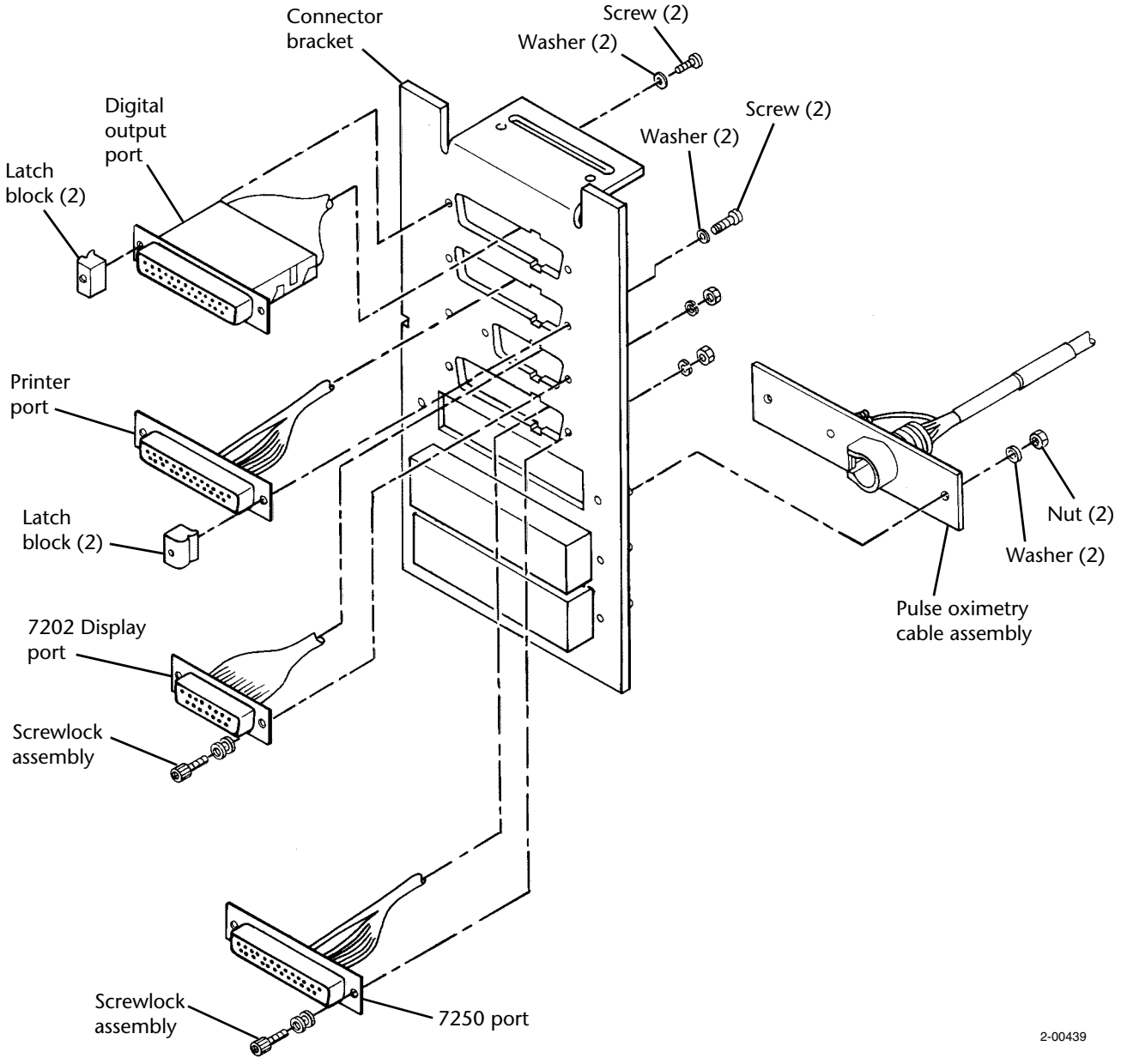

Figure 19-5. Removing Cable and Harness Assemblies from Non-EMI 7-Connector Bracket

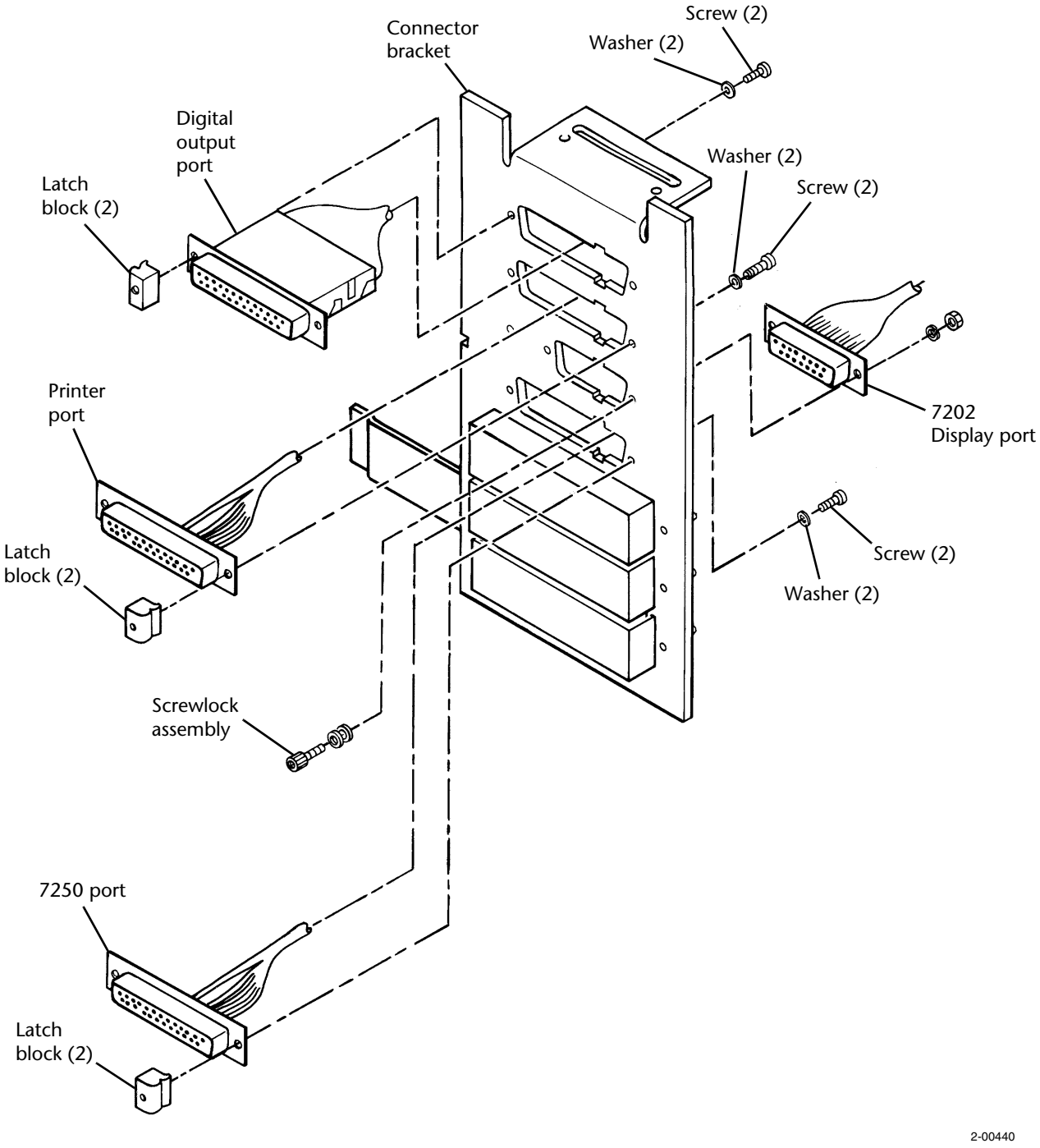

Figure 19-6. Removing Cables and Harness Assemblies from EMI 7-Connector Bracket

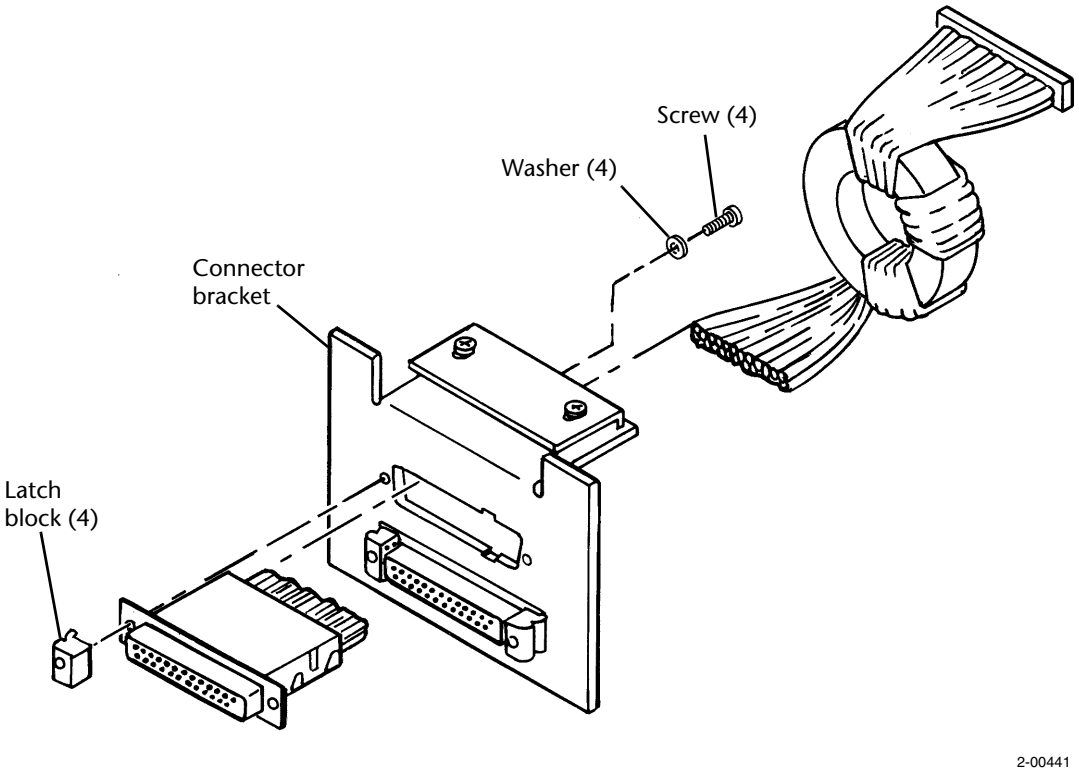

Figure 19-7. Removing Cables from 2-Connector Bracket